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Digital archives, e-books and narrative space

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Digital archives and the spaces of environmental story telling

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Digital archives, e-books and the spaces of environmental story telling

Abstract

In this paper we are concerned with the capacity of digital media to enable publics to tell their own environmental stories using digital broadcast media archives (DBAs). It considers the ways in which digital media afford different ways of telling stories in relation to digital media archives. Central to this discussion is our experience of writing e-books as part of the AHRC funded project *Earth in Vision: BBC coverage of environmental change 1960-2010*. The e-book format has been adopted in order to explore some of the possibilities for writing environmental history and politics using DBAs. The paper shows how digital narrative spaces are characterised by multiple forms of translation. This includes translation from analogue archive to digital archive and through a variety of digital platforms formats and sequences of emplotment. The paper concludes that e-books have very significant creative potential. This would be greatly enhanced if some issues of copyright can be resolved, as the interactive functionality of formats expand, and if a greater degree of portability can be established between Apple and Microsoft platforms. In the foreseeable future, the spaces of e-book narrative will continue to be complex and contradictory.

Key words: digital geographies, environmental history, environmental politics, narrative space, e-book, digital broadcast media archives

Introduction

This paper reflects on the experience of telling multi-media environmental stories using the ebook format. Following Elwood and Mitchell (2015, 151) this paper is concerned with the processes by which new digital media both shape and transform familiar communicative practices such as story-telling. There is now a significant body of writing from academics and educationalists arguing for the possibilities open to new generations of citizen journalists, filmmakers, podcasters, bloggers and tweeters, for example to make, shape and engage public debate around key issues of the day, such as those concerning human induced climate change, biodiversity, food safety and security or issues of energy mix (Couldry 2010; Hartley 2012; Jenkins et al 2016; Rebillard and Touboul 2010; Longhurst 2009; Rose 2016a; Smith et al 2014). Following Elwood and Mitchell's (2015, 151) call and given the many affirmations of the digital for reworking both stories and story-telling, this paper examines what kinds of narrative spaces are opened up by the digital. It draws on our experience of making multi-media e-books to explore how this medium might afford and facilitate creating and sharing new environmental histories using digital archives. E-books can be much more than the digital equivalents of paper books, through the potential to combine text, video and audio clips with photos, scanned documents, photos and pictures. This helps to give archive materials a multimedia context and bring archives alive by telling histories using the full range of historical materials now available via digitisation. Compared with print, e-books encourage the active reader/user by allowing a degree of discretion in terms of pace and choice of route through the content.

Digital archives and narrative space

Central to our *Earth in Vision* project is the assertion that framings of environmental change issues have typically been narrow and static, and have been reinforced by a policy field often unable to address the complexity and uncertainty inherent in these long-term issues. We are interested in the extent to which archive and internet developments could combine to allow for more imaginative future cultural responses to issues of environmental change. Key to such cultural responses is to provide different publics with the resources and the opportunities to make arguments and create narratives and stories that challenge conventional accounts and set out agendas and points of view that might contribute for example to rethinking environmental challenges in more positive, constructive and environmentally sensitive ways. Whilst there are many unresolved questions about who gets access to and permission to use digital broadcast media archives (DBAs), their continued release opens up potentialities for new forms of storytelling and an expanded body of storytellers. This might result in new amateur histories and inspiring opportunities for learning and teaching.

The BBC's archives hold over a million hours of programmes, dating back to the 1930s (radio) and 1940s (television). Though a small amount of material has been released for public viewing via BBC iPlayer, the vast proportion of this archive remains substantially unavailable to publics and researchers. Whilst online DBAs are in the early stages of development, they are fast following in the footsteps of digitized text, image and music and their associated archives. It is fair to anticipate continued large-scale online digital releases of broadcast archives in coming years. Online digital broadcast site *You Tube*, which emerged some 10 years ago, is considered the gold standard example (Burgess and Green 2009). Other notable DBA releases include British Pathé, which uploaded its entire archive, a

collection of 85,000 historic films, on its own *You Tube* channel in 2014, and those from the British Film Institute (BFI), the Prelinger, Shell, BP and the British Council film archives. The opportunities afforded by these new forms of creative archive are complemented by the ongoing creation and development of tools that permit richer use of media online and that facilitate the reusing and re-versioning of DBAs tools are emerging, creating the opportunity for both makers and users to add layers of meaning and value.

The capacity of digital media to enable and facilitate storytelling, creating new narratives and novel interpretations, is key to the emancipatory potential of such media to give voice and widen participation in debate (Mihalidis and Cohen 2013; Mulholland et al 2004; Ryan and Thon 2014). Though discussion of digital media often invokes the capacity to tell and make stories, yet 'storytelling' remains under theorised. Digital story telling can include a wide range of practices and experiences from the co-construction of narrative experience within interactive gaming, the curation of personal biographies through social media platforms to the creation of new stories from existing audio and video adopting a 'mashup' style plunder aesthetic. These practices are afforded by the ease of cutting and collaging digital materials.

Within geography, story telling is recognised as a distinctive and legitimate form of knowledge, for example within feminist political, historical and post-colonial scholarship (for example, Cameron 2012; McGeachan et al 2012; McGeachan 2016). For literary geographers, conceptions of narrative space have become increasingly complex and relational (Hones 2008, 2011). During the 1990s conceptions of narrative space as emancipatory and oppositional were popularised in geography through De Certeau's (1984)

characterisation of storytelling and everyday life. Many geographers will be familiar with his contrast between the formal spaces of strategic narrative and the informal and oppositional spaces of tactical storytelling. Story telling is also associated positively with the act of giving voice, where the ability to make and tell stories is understood as providing opportunities for free speech, plurality of expression and diversity in debate (Couldry 2010). Where the *Earth in Vision* project is concerned it is possible to read into the rationale for the project a contrast between De Certeau's formal strategic narratives represented by BBC programming or other mainstream media organisations and the tactical stories created informally by publics enabled by appropriation or reappropriation versioning, collages and mashups made possible by the free availability of digital media archives and tools.

The ways in which pieces of evidence or 'events' from archives are assembled into narrative form for the writing of history has been discussed in debates around what the controversial philosopher of history Hayden White (1973) called emplotment (Crowell 1998; Vann 1998). Whatever the merits of White's argument, recognition that making histories, including environmental histories, requires selection and curation of specific elements of archival evidence is important. White called these historical 'units' and their sequencing informed by one or more forms of meta narrative highlights the ways narrative is always created at the intersection of multiple temporalities. Such sequencing meta narratives include argument, theory, opinion, archival structures or the historical conventions of narrative itself. These include the temporalities of the archive itself, the specific moments of the events selected for sequencing and the affordances of theoretical and contextual argument. Together these may be understood as technologies of narrative. Most importantly in terms of narrative spaces enabled and shaped by the digital is White's argument that history is shaped by

these technologies of narrative in fundamental ways. The argument that new digital media can open up new storylines and emplotments around issues of environmental history and environmental debate is an invocation and acknowledgement of White's insight made in the early 1970s well before the era of hypertext. More recently the capacity for digital media to encourage and embrace multiple narratives and linkages, sharing characters and material, whilst developing, shaping and reinventing common plotlines and narrative elements has become understood through the concept of convergence culture, where stories and 'storyworlds' unfold across a range of media formats and platforms (Berry 2014; Bolter and Grusin 1999; Jenkins 2006; Rose 2016b; Ryan and Thon 2014).

If the concept of narrative relates most closely to the temporal sequencing of events, then the concept of narrative space opens—up the layering of storying, experiences and perspectives providing close up immediacy and distant reflection and contextualisation. The concept of narrative space was first defined within the context of film theory by Heath (1976), others extended Heath's conception of narrative space to include the unseen and spaces that are talked about and alluded to, not just what's shown on screen, or described in text (Cooper 2002). These theorisations are useful because they include image, sound, objects, actions, practices and contexts in addition to actors, spectators and narrators as active participants in the making of stories.

The ways digital technologies afford and shape narrative based on digital archive material is very substantially focused on the spaces created through actions of clipping, translation and sequencing. Though clipping film, audio or images has always been possible by analogue means, it is much easier to create collages digitally. The holding of media archives in digital

form is facilitated by common platforms and sets of standards allowing an eclectic and spatio-temporally heterogeneous range of media produced using differing technologies to be merged and shared. Processes of merging and sharing are enabled by multiple forms of translation. Translations include the processes of copying from analogue to digital with all the implications of abstraction, selection, curation and data loss and modification that these imply and in addition the removal of narrative elements from one story, argument or historical context, their insertion and placement within new ones. Such moves juxtapose narrative elements in the form of clips with previously distantly related others affording new relations and connections, decontextualisations, recontextualisations and emplotments. In this context, narrative spaces are the spaces of possibility opened by these creative processes and socio-technical relations.

E-books, environmental histories and digital narrative space

In our *Earth in Vision* project e-books we tell three environmental history stories using BBC digital and paper archives. These look at different aspects of the BBC's place and role as itself a maker of environmental histories. In turn the books examine; the iconic role of Sir David Attenborough in BBC environmental programming; the ways in which BBC programming produces and reproduces ideas of British landscape; and thirdly, TV's role in shaping global environmental imaginations. These three stories will serve to illustrate the potential of the DBAs (here the BBC broadcast archives) for telling new histories, and will be published as free e-books. The e-books link to a website holding a sample of cleared content and some resources that allow users to play with this content. The following sections examine three different sets of ways in which digitisation and digital media produce specific sorts of narrative space in relation to our experience of e-book production.

Spaces of archiving and encoding

One task central to the project is scanning, copying, and digitising an eclectic range of historical materials in addition to the digitised BBC programmes themselves. These include documents related to the production of programmes such as scripts, shooting schedules, letters, accounts and ephemera, in addition to audience research and a collection of recorded critical reflections in the form of interviews with programme makers. Archiving is a process of translation and like any process of translation there are always losses and gains. When material is digitised information is lost as a result of the process and the level of resolution at which digitising and compression takes place. Some of this information might be thought redundant, for example the smell or feel of a piece of paper or the barely discernible pencilled scribble in the corner. Yet thinking of the BBC paper archive materials that are one of the constituent elements of the e-books, there is something immediate, urgent and provisional in the paper memos and ephemera that is lost in the process of photography. Digital reproduction requires clear, sharp and precise images for screen legibility. But this step does involve attrition (and potential misrepresentation). Digital narrative spaces appear closer and more immediate to readers and yet can also have an objectified distance in which abstraction and translation into digital form results in the significant loss of material qualities.

There are therefore implicit assumptions inherent in the processes of digitisation. As Stern (2006) shows in his study of MP3 encoding, the assumptions made at encoding produce spaces of possibility that can have both intended and unintended consequences. He shows how the significant loss of detail which accompanies MP3 encoding is traded against an

underlying ideology of portability. This subsequently allowed the exchange of music to escape the control of those industries which initially signed up to the development of the MP3 standard. We are interested in the capacity of digital materials to escape control of the producer, so in one sense we would like to see the sort of informal swapping, making and mashup that was an unintended result of MP3 encoding. These issues open up e-book narrative spaces to a range of challenges and opportunities. In terms of the challenges, the abstraction that results from the loss of information with digitisation and clipping present problems for us because our e-books endeavour to provide contextual histories. These histories take into account the processes of making programmes, the specifics of social, cultural, economic and political context, in addition to understandings of genre and format histories of programme making. However, in terms of opportunities, the ease with which audio and video clips can be embedded alongside text and images makes it relatively easy to break with existing narrative genres and create new narratives around sets of collaged images and audio brought together from a variety of sources.

Spaces of curatorship, creativity and collections

The model for e-book curation is sometimes conceived as a museum with a series of galleries (Troiani and Kahn 2016). Much like website construction, the spaces of the collection are built around specific digital artefacts, images, videos, audios with text and hypertext as connecting and contextualising links between these. This creates a spatial structure in which digital objects and artefacts are categorised and juxtaposed in rooms or galleries according to some sort of similarity or organising principle. At the same time, it leaves significant openness and discretion for the e-books' 'curators' to create narrative journeys between the galleries and amongst the objects. It also opens a space for varying

degrees of visitor/reader discretion enabled both by hypertext and the hierarchisation of levels of detail around a particular gallery or specific object. As when visiting a museum or collection, e-books based around collections of historical source material often assume that visitors/readers will move further or deeper into the collection and linger around particular objects or topics as their interests take them. To this extent the experience of reading or visiting a multi-media e-book is more like visiting a website or using an interactive app than reading a digitised book on a Kindle or many other proprietary e-readers.

Grounded as it is in strategies and techniques of web writing, there is an explicit structuring to the production of narrative text for e-books that works much like a web site. The characteristics of such writing include the use of short paragraphs, editorial limits on the number of words per page set at perhaps no more than 400 words maximum, and the adoption of textual strategies to gain attention for example through the use of introductory hooks explicitly designed to gain the visitor/reader's attention. In addition, writing in such a way that assumes a hierarchy of interest and knowledge also explicitly structures the text. Earlier paragraphs assume less knowledge and a more general audience whilst information set lower down or behind the main page assumes a desire to know more on the part of the visitor/reader. In this way the sort of e-book narratives we are writing make different visitor/reader assumptions and expectations based on the where the visitor/reader might find themselves within the spatial organisation of the e-book.

The e-books written for the *Earth in Vision* project mimic the production processes and values of the broadcast programming that forms their subject matter in several important respects. When conceived of through the museum/gallery metaphor their narratives are

asset driven and they rely substantially on visual and audio artefacts to tell their story. In this sense there is a real danger of reproducing the attention catching presentism of which the mass media is sometimes accused. At the same time, the multimedia e-book format taps into a potentially rather more positive aspect of media production. E-book production questions notions of solitary authorship. Even more than in the cases of TV or radio production, making a multi-media e-book can be very much a team effort, involving writers, audiovisual content providers, curators and designers working together.

Collaging and reordering media clips into new narratives highlights the importance of archive meta data as a key to opening up and enabling the processes of curation. Metadata is created through tagging, labelling and cataloguing. Two types of cataloguing are important if users are to find what they need amongst many 1000s of hours of material: firstly, a catalogue which enables users to find particular programmes from the total archive and enables them to choose by genre, subject matter, programme makers, participants, channel, date and time amongst other criteria; secondly, an index system that enables users to find particular segments of text or audio. Without this, potential story makers are condemned to watch many hours of programming just to find a few minutes of suitable material. There is considerable value for curators/story tellers, to immerse themselves in the archive and become intimately familiar with the material it contains. But if such material is to empower a wide variety of users from school students and other publics through to filmmakers then metadata is key. It is only by being able to search both within (for example via time coded transcripts) and between media assets and to log/save those searches, that users can find what they want and begin the process of creating their own stories, presentations, films and audio. Though we describe the BBC's repository of digitised

programming as an 'archive' it is arguable that it only gains this status with the addition of a layer of meta data. In other words, indexing or cataloguing conducted with a degree of expertise is a prerequisite for this content to become widely accessible for historical story tellers.

Our starting point was the BBC's own database of programming, but this is designed to address the needs of BBC staff and is very limited in the information it provides. One member of our team had the task of watching the 50 hours of programming (100 programmes) that we had selected from the catalogue of archived programmes for the project and then producing our own meta database in order to help us to navigate the material for the purposes of drafting our academic papers, designing the workshops and for writing the e-books. Another metadata source we found useful is the BBC Genome Project, the BBC's online digitisation of Radio Times data for public use. This provides an online searchable database of programme listing information and made it searchable for key words. Searches can be made by title, key word, year, month, day, time of transmission, TV only, Radio only or both. We have used the Genome database particularly in the context of our e-book concerning BBC landscape programming. The database made it possible to provide some context in terms of where programmes concerning landscape appear on the networks whilst giving some information concerning their number, historical patterning, themes and content. It is possible to search for programmes from the very early years of British broadcasting in 1922 until the last year of digitisation in 2009. As a digitisation of the Radio Times, the Genome project is itself a digital historical archive with its own historical integrity and historical stories to tell. Descriptive entries for specific programmes in the Radio Times are very variable across time and from station to station. Thought of as meta

data, the Genome project is very much a compromise, limited by the original data source. In effect it is a distinctive historical archive where important curatorial and editorial decisions have been made by generations of Radio Times staff.

Spaces of access and accessibility

The processes of making e-books highlights issues concerning access and accessibility which speak to some key debates around geographies of the digital. A founding assumption of the *Earth in Vision* project is to explore ways of making DBAs available and usable by a diversity of individuals and groups. Differential access is partly tied in with geographical and socio-economic disparities and related inequalities in both network coverage and access to technological devices. These disparities and uneven distributions in relation to access are familiar from the work of geographers (Kitchen and Dodge 2011). However, amongst the biggest barriers we face in relation to opening the possibilities of using digital archives to make and tell new stories are the issues of copyright and intellectual capital. DBAs cannot be made public until issues surrounding rights are resolved. In itself this highlights the already composite and collaged nature of broadcast media which is often so shot through with third party rights to embedded film clips, images and music that it becomes impossible to thoroughly clear the material for legal use.

In terms of writing an e-book, the question of copyright and associated costs results in very tightly constrained choices regarding the number and length of BBC programme clips we can use. This in turn creates an interesting set of constraints which are also in their way a stimulus to writing and working creatively and economically with media assets. Our experience of working to create multi-media e-books with 50 hours of BBC media archive

content is that of making repeated returns to YouTube to search and watch material uploaded by members of the public who will almost certainly not have formal copyright clearance. Some of the BBC programming found on YouTube does not exist in the BBC's own archive and therefore although we can access this material informally, we cannot use it in our e-books because it is not possible to obtain official copies that can be legally cleared and paid for in copyright terms. In this context, the sort of narratives we can tell as academics with public funding is highly constrained by formal structures and might be understood in De Certeau's terms as strategic rather than tactical.

It is arguable that in some important respects multi-media e-books are more portable and accessible than either Apps or websites. They have some of the functionality derived from these platforms including search, hypertext, audio, video and potential for interactive engagement through quizzes, links and user generated text or input for example; but they do not necessarily need a constant internet connection to be at least partly functional. However, the fact that at the time of writing there currently exist different e-book, formats, standards and capabilities, most prominently for Apple and Microsoft operating systems is a problem where access and accessibility are concerned. We concluded that while the Apple format offered the greatest functionality and is likely to be the choice of e-book makers, the Microsoft format is currently the most widely available to users. This presents a series of difficult choices which we seek to resolve by producing multi-media e-books on both formats. The size of media files used in e-books is also an important issue in terms of e-book accessibility and portability. Currently we are working to 2.5 gigabytes as the total size of our e-books. One approach to the e-book is to think in terms of museum standards of reproduction. But maximising portability for example to enable our e-books to be read on

public transport, requires that the producer works to reduce the total file size (and hence range or resolution of available content) substantially. In both technological and institutional terms where reversioning DBAs and creating multi-media e-books are concerned the implications of individual, partial, private and corporate ownership of what are suggestively called media assets is very difficult to square with open access and increased democratization of environmental story-telling. As Jenkins (2006) and others claim with regard to examples of digital convergence culture such as the e-book format, these techno-cultural forms seem to speak to a situation where 'access' can mean the internet as either one big commercial marketplace, where we are all citizen consumers or one big democratic space, an agora where we are all citizen activists. For us as academics writing environmental histories in the spaces in between these polarities, the contours of this spatiality provide a rapidly evolving set of contexts as media innovations, institutional and technological structures and user practices continue to evolve rapidly.

Conclusion

Though some attention has been paid by geographers to the narrative spaces of virtual gaming and to the virtual biographies created by the production of metadata as people pass through the many digital interfaces of the contemporary environment such as card readers, ticket machines and other surveillance technologies, relatively little attention has been paid to the making of digital narrative itself (Kitchen and Dodge 2011, Kinsey 2014). Consideration of the e-book format with all its current problems and opportunities begins to open this debate towards a broader consideration of narrative relevant to academic practice in the 21st century. Where authors such as White (1973), Heath (1976) and Cooper (2002) were concerned with the making of narratives by authors, the digital brings into

sharp focus both the technological shaping of the possibilities for narrative and the active participation of audiences in the making and sharing of stories. In terms of e-book production, its digital narrative spaces are characterised by multiple forms of translation. This includes translation from analogue archive to digital archive and through a variety of digital platforms formats and sequences of emplotment. Such moments find echo in the spaces of translation which Bhabba (1994, 1996) and others argue are central to the elaboration and innovation of meaning in texts and textual translations. Our experience of working with the e-book format suggests that this sense of translation through cutting, curation and emplotment applies equally well to media archive materials including video, audio and images. Our experience confirms that e-books have very significant creative potential. This would be greatly enhanced if some issues of copyright can be resolved, as the interactive functionality of formats expand, and if a greater degree of portability can be established between Apple and Microsoft platforms. In the foreseeable future the spaces of e-book narrative will continue to be complex and contradictory. As Jenkins (2006:23) argues, 'we need to find ways to negotiate the changes taking place. No one group can set the terms... [d]on't expect the uncertainties surrounding convergence to be resolved anytime soon.' (Jenkins 2006, 23-4). However, learning not just how to order and present our material within e-books, but also how to invite and lead others through these new digital spaces, whether in e-books or other fast-evolving digital forms and platforms, promises to become a far more prominent element of academic practice, and represent an increasingly significant and well-measured response to calls for impact and public engagement.

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